DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: <u>SF/ALA</u> Rte: <u>80</u> PM: <u>13.2/13.9</u>

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary Report No: WIR-010949
Address: 333 Burma Road Date Inspected: 04-Jan-2010

City: Oakland, CA 94607

Project Name: SAS Superstructure OSM Arrival Time: 645
Prime Contractor: American Bridge/Fluor Enterprises, a JV OSM Departure Time: 1845

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island Location: Shanghai, China

CWI Name: CWI Present: Yes Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

Bridge No: 34-0006 Component: OBG

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Assembly Yard

6BE+6AE

Flux Core Arc Welding (FCAW) repair welding was performed on weld joint 003. Welder is identified as Mr. Zhou Pan (220063). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-FCAW-3G (3F)-FCM-Repair-1 and WR9154.

6AE

Shield Metal Arc Welding (SMAW) repair welding was performed on X3S and X8E member located at panel point 38 at cross beam side of segment. Welder is identified as Mr. Zhao Guanglin (044779). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345+485-SMAW-3G (3F)-Repair-1 and WR9540.

6BW+6CW

WELDING INSPECTION REPORT

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Shield Metal Arc Welding (SMAW) repair welding (VT rejects) was performed on side plate stiffeners on counter weight side of segment. Welder is identified as Mr. Li Peng (048617). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-Smaw-3G (3F)-Repair-1.

Shield Metal Arc Welding (SMAW) repair welding (VT rejects) was performed on side plate stiffeners on counter weight side of segment. Welder is identified as Mr. Dai Lu (048659). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-Smaw-3G (3F)-Repair-1.

Flux Core Arc Welding (FCAW) welding was performed on weld joint 005 located at OBW6A on cross beam side of segment. Welder is identified as Mr. Xin Meng (053742). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2233T.

Flux Core Arc Welding (FCAW) welding was performed on weld joints 002 and 001 located at OBW6C on counter weight side of segment. Welder is identified as Mr. Li Xue Hua (200676). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2233T.

Flux Core Arc Welding (FCAW) welding was performed on weld joints 002 and 001 located at OBW6C on counter weight side of segment. Welder is identified as Mr. Chen Zhenghua (220067). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2233T.

Flux Core Arc Welding (FCAW) welding was performed on weld joint 003 located at OBW6C on bottom plate of segment. Welder is identified as Mr. Li Shuqiang (053609). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2233T.

Flux Core Arc Welding (FCAW) welding was performed on weld joint 003 located at OBW6C on bottom plate of segment. Welder is identified as Mr. Zhang Hanming (220066). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2233T.

Submerge Arc Welding (SAW) welding was performed on weld joints 002 and 004 located at OBW6A on deck plate of segment. Welder is identified as Mr. Jian Jingteng (046830). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-223(2)-1T-2.

NDT Observation

This QA Inspector observed ZPMC Ultra Sonic Testing (UT) Technician performed UT on various locations in the trial assembly yard. Y location and indications are as followed:

6AW+6BW

1. Deck plate weld joints OBW6-002, 003 and 004.

WELDING INSPECTION REPORT

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NDT Observation

QA Inspector observed ZPMC's personnel performing Magnetic Particle Testing (MT) inspection on various locations in the trial assembly yard. Y location and indications are as followed:

5BE

1. Deck plate to edge plate weld joint SEG24*-037. 3 transverse indications were observed between Y location 650mm and 710mm. This QA Inspector noted area was not accepted by ZPMC. ZPMC QC Inspector Wu Zhi Cheng informed this QA Inspector that a CWR will be submitted for this repair area.

6BW

During random in-process visual inspection at Segments 6BW counter weight side attachment edge, temporary attachment removal areas, this QA Inspector observed base metal repairs without prior approval of the Engineer. This QA Inspector issued an incident report for noted issue.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (134-8257-0045), who represents the Office of Structural Materials for your project.

Inspected By:	Alaniz,Joe	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer